Distribution List for Final Reports (Report by Parameter) and Combined Final for

SKY VALLEY EDUCATION CENTER

Project Code: OCE-009B Account: 20162017B10P501E50

Project Officer: MICHELLE MULLIN Sample #s: 16334000-4

Analyses Required: PCB (Preliminary Results due 8/31)

CCs: Kendall Moore- USEPA Region 5

Final reports (report by parameter) should be sent for the type of analysis indicated in the Quality Assurance Review. Please use the space below to document when Final reports were sent out to the Project Officer and above listed CCs.

Final Report of Prelim (analysis) sent out on: 9/1/16 KR (date and initial)

Final Report of PCB (analysis) sent out on: 10/12/16 KR (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Final Report of _____ (analysis) sent out on: _____ (date and initial)

Project complete and Excel file (EDD) electronically e-mailed: _____ (Date & Initials)

Corrective Action Notice Required? NA

If Yes, #of samples affected: _____

Total # of samples received: 1

Scan Chain of Custody OK

Date Received: 8/19/16

Turnaround Time: 8wks

Date Due: 10/14/16

Date Verified w/ Sample Login: ✓

Norton, Karen

From: Dodo, Gerald
Sent: Wednesday, October 12, 2016 11:39 AM
To: Mullin, Michelle
Cc: Norton, Karen; Wood, Kim; Moore, Kendall; Pepich, Barry
Subject: FW: FINAL RESULTS- Sky Valley OCE-009B PCB (Complete)
Attachments: QA OCE-009B Sky Valley PCB.pdf; RA OCE-009B Sky Valley PCB.pdf; Sky Valley OCE-009B PCB.csv; Sky VFalley OCE-009B PCB.pdf; Client satisfaction form Rev1.doc

Let me know if you need signed copies of the attached. This completes the analyses under project code OCE-009B. If you could take a moment to fill out and return to me and Barry Pepich the attached survey form it will be appreciated.

Gerald Dodo
Supervisory Chemist
DWCO
USEPA Region 10 Laboratory
7411 Beach Dr. East
Port Orchard, WA 98366

Phone: (360) 871-8728
FAX: 360-871-8748

From: Norton, Karen
Sent: Wednesday, October 12, 2016 9:24 AM
To: Dodo, Gerald <Dodo.Gerald@epa.gov>; Wood, Kim <Wood.Kim@epa.gov>
Subject: FINAL RESULTS- Sky Valley OCE-009B PCB (Complete)

Karen Norton
TechLaw, Inc.
Data Entry- Region 10 ESAT
(360) 871-8760

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366

OCT 12 2016

MEMORANDUM

Subject: Data Release for PCB Aroclor Results from the Region 10 USEPA Laboratory

Project Name: Sky Valley Education Center PCB Inspection

Project Code: OCE-009B

From: Gerald Dodo, Supervisory Chemist
Office of Environmental Assessment, USEPA Region 10 Laboratory

To: Michelle Mullin
Office of Air Waste and Toxics, USEPA Region 10

CC: Kendall Moore
USEPA Region 5

I have authorized release of this data package. Attached you will find the PCB Aroclor analysis results for the Sky Valley Education Center samples collected 8/18/16. For further information regarding the attached data, contact Chris Pace at 360-871-8703.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366

QUALITY ASSURANCE MEMORANDUM FOR ORGANIC CHEMICAL ANALYSES

Date: October 11, 2016

To: Michelle Mullin
Office of Air Waste and Toxics, USEPA Region 10

From: Chris Pace, Chemist
Office of Environmental Assessment, USEPA Region 10 Laboratory

Subject: Quality Assurance Review for the PCB Aroclor Analysis of Samples from the Sky Valley Education Center PCB Inspection.

Project Code: OCE-009B
Account Code: 20162017B10P501E50

CC: Kendall Moore
USEPA Region 5

The following is a quality assurance review of the data for PCB Aroclor analysis of samples from the above referenced site. The analyses were performed by the EPA Region 10 Laboratory in Port Orchard, WA, following EPA and Laboratory guidelines.

This review was conducted for the following samples:

16334000	16334001	16334002	16334003	16334004

Data Qualifications

Comments below refer to the quality control specifications outlined in the Laboratory's current Quality Assurance Manual, Standard Operating Procedures (SOPs) and the Quality Assurance Project Plan (QAPP). No excursions were required from the method Standard Operating Procedure.

The quality control measures which did not meet Laboratory/QAPP criteria are annotated in the title of each affected subsection with *"Laboratory/QAPP Criteria Could Not be Met"*.

For those tests for which the EPA Region 10 Laboratory has been accredited by The NELAC Institute (TNI), all requirements of the current TNI Standard have been met.

1. Sample Receipt

Upon sample receipt, no conditions were noted that would impact data quality.

2. Sample Holding Times

The concentration of an analyte in a sample or extract of a sample may increase or decrease over time depending on the nature of the analyte. There is no SW-846 recommended maximum holding time for samples from the day of collection until extraction for PCBs. Extracts have a holding time maximum of 40 days from the time of preparation. All samples were extracted and analyzed within these criteria.

3. Sample Preparation

Samples were prepared according to the SOP.

4. Initial Calibration/Continuing Calibration Verification (CCV)

Initial calibrations were performed on 8/19/16. Calibration curves met the coefficient of determination criteria.

The CCV met the criteria for frequency of analysis. The percent accuracies met the criteria of 80-120% of the true value for all reported results.

5. Blank Analysis

Method blanks were analyzed with each sample batch to evaluate the potential for laboratory contamination and effects on the sample results. Target analytes were not detected in method blanks.

6. Surrogate Spikes

Surrogate recoveries are used to help in the evaluation of laboratory performance on individual samples. The surrogate compound used for these analyses was tetrachlorometaxylene and decachlorobiphenyl (PCB congener 209). All surrogate recoveries were within the SOP criteria of 30-150%.

7. Matrix Spike

An MS/MSD was not performed on this sample set.

8. LCS/LCSD

Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD) are generated to provide information on the accuracy and precision of the analytical method and the laboratory performance. The LCS/LCSD recoveries met the SOP criteria of 70-130% with a relative percent difference $\leq$50%.

9. Compound Quantitation

The initial calibration functions were used for calculations. Reported quantitation limits were based on the initial calibration standards and sample size used for the analysis.

All manual integrations have been reviewed and found to comply with acceptable integration practices.

10. Identification

PCBs and the surrogates were identified based on chromatographic retention times of two dissimilar gas chromatography columns as determined from the initial calibration and pattern matching with standards.

11. Data Qualifiers

All requirements for data qualifiers from the preceding sections were accumulated. Each sample data summary sheet and each compound was checked for positive or negative results. From this, the overall need for data qualifiers for each analysis was determined. In cases where more than one of the preceding sections required data qualifiers, the most restrictive qualifier has been added to the data.

The usefulness of qualified data should be treated according to the severity of the qualifier in light of the project's data quality objectives. Should questions arise regarding the data, contact Chris Pace at the Region 10 Laboratory, phone number (360) 871 - 8703.

Qualifier	Definition
U	The analyte was not detected at or above the reported value.
J	The identification of the analyte is acceptable; the reported value is an estimate.
UJ	The analyte was not detected at or above the reported value. The reported value is an estimate.
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable. No value is reported with this qualification.
NA	Not Applicable, the parameter was not analyzed for, or there is no analytical result for this parameter. No value is reported with this qualification.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366

Checklist Completed by (initials): _____ Date: 10/11/16

QA MEMO CHECKLIST

OK	Recent date on memo
OK	Memo signed by reviewer
OK	Sender and all recipients correct (In the "To" and "cc" fields)
OK	Project name correct
OK	Project code correct
OK	Account code correct
OK	Sample numbers correct
OK	Verify through the assignment tab in LIMS that the analyst has loaded results for all samples.
OK	Correct header on subsequent pages
OK	Data qualifier definitions included on last page (only the ones that are actually used should be included in the memo.)
OK	TNI (Formerly NELAC) disclosure included
OK	No red type remaining in the memo (clue to misspelled words or sections where directions/choices have not been deleted)
NA	If preliminary data was issued, a statement that preliminary and final data agree or disagree.
NA	Verify sample times (collection/prep/analysis) on final report for all parameters with 72-hour holding times: all Micro, BOD, pH, Cr^{+6}, orthophos, $NO_3 + NO_2$ (unpreserved). If a holding time was exceeded, is it discussed in the QA memo?

US EPA Region 10 Laboratory

Assignment Reconciliation Report

OCE-009B SKY VALLEY EDUCATION CENTER

Sample ID	Sample Information	Matrix	Lab Area	Parameter	HT	HT End	Done?	Analysis Count
16334000	4oz Blank Wipe R01	Wipe	Organics	PCB	365	8/18/17 10:40		1
16334001	40mL Blank R02	Solid	Organics	PCB	14	9/1/16 11:45		1
16334002	Wipe of Classroom D Floor S01	Wipe	Organics	PCB	365	8/18/17 10:50		1
16334003	Soild Insulation Material S02	Solid	Organics	PCB	14	9/1/16 11:20		1
16334004	Wipe of Pneumatic Pump S03	Wipe	Organics	PCB	365	8/18/17 11:50		1

US EPA Region 10 Laboratory

Multi-Analyte Final Report

Project Code : OCE-009B
Site : SKY VALLEY EDUCATION CENTER
Contact : Michelle Mullin
Account : 20162017B10P501E50

Sample : 16334000

Information : 4oz Blank Wipe R01
Matrix : Wipe **Weight Basis :** N/A
Collected : 8/18/2016 10:40:00AM

Parameter : PCB
Lab Matrix : Swab
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Target Analyte Results:						
12674112	PCB-1016	0.25	ug	U	8/25/16	1
11104282	PCB-1221	0.25	ug	U	8/25/16	1
11141165	PCB-1232	0.25	ug	U	8/25/16	1
53469219	PCB-1242	0.25	ug	U	8/25/16	1
12672296	PCB-1248	0.25	ug	U	8/25/16	1
11097691	PCB-1254	0.25	ug	U	8/25/16	1
11096825	PCB-1260	0.25	ug	U	8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	100	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	105	%Rec		8/25/16	1

Sample : 16334001

Information : 40mL Blank R02
Matrix : Solid **Weight Basis :** N/A
Collected : 8/18/2016 11:45:00AM

Parameter : PCB
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Target Analyte Results:						
12674112	PCB-1016	250	ug/kg	U	8/25/16	1
11104282	PCB-1221	250	ug/kg	U	8/25/16	1
11141165	PCB-1232	250	ug/kg	U	8/25/16	1
53469219	PCB-1242	250	ug/kg	U	8/25/16	1
12672296	PCB-1248	250	ug/kg	U	8/25/16	1
11097691	PCB-1254	250	ug/kg	U	8/25/16	1
11096825	PCB-1260	250	ug/kg	U	8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	106	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	113	%Rec		8/25/16	1

Sample : 16334002

Information : Wipe of Classroom D Floor S01
Matrix : Wipe **Weight Basis :** N/A
Collected : 8/18/2016 10:50:00AM

Parameter : PCB
Lab Matrix : Swab
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Target Analyte Results:						
12674112	PCB-1016	0.25	ug	U	8/25/16	1
11104282	PCB-1221	0.25	ug	U	8/25/16	1
11141165	PCB-1232	0.25	ug	U	8/25/16	1
53469219	PCB-1242	0.25	ug	U	8/25/16	1
12672296	PCB-1248	0.25	ug	U	8/25/16	1
11097691	PCB-1254	0.25	ug	U	8/25/16	1
11096825	PCB-1260	0.25	ug	U	8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	103	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	111	%Rec		8/25/16	1

Sample : 16334003

Information : Soild Insulation Material S02
Matrix : Solid **Weight Basis :** N/A
Collected : 8/18/2016 11:20:00AM

Parameter : PCB
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Target Analyte Results:						
12674112	PCB-1016	230	ug/kg	U	8/25/16	1
11104282	PCB-1221	230	ug/kg	U	8/25/16	1
11141165	PCB-1232	230	ug/kg	U	8/25/16	1
53469219	PCB-1242	230	ug/kg	U	8/25/16	1
12672296	PCB-1248	230	ug/kg	U	8/25/16	1
11097691	PCB-1254	230	ug/kg	U	8/25/16	1
11096825	PCB-1260	230	ug/kg	U	8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	108	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	114	%Rec		8/25/16	1

Sample : 16334004

Information : Wipe of Pneumatic Pump S03
Matrix : Wipe **Weight Basis :** N/A
Collected : 8/18/2016 11:50:00AM

Parameter : PCB
Lab Matrix : Swab
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Target Analyte Results:						
12674112	PCB-1016	0.25	ug	U	8/25/16	1
11104282	PCB-1221	0.25	ug	U	8/25/16	1
11141165	PCB-1232	0.25	ug	U	8/25/16	1
53469219	PCB-1242	0.25	ug	U	8/25/16	1
12672296	PCB-1248	0.25	ug	U	8/25/16	1
11097691	PCB-1254	0.25	ug	U	8/25/16	1
11096825	PCB-1260	0.25	ug	U	8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	60	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	109	%Rec		8/25/16	1

Sample : 92O082416B1 Blank

Information : Blank
Matrix : Swab **Weight Basis :** N/A

Parameter : PCB
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Target Analyte Results:						
12674112	PCB-1016	0.25	ug	U	8/25/16	1
11104282	PCB-1221	0.25	ug	U	8/25/16	1
11141165	PCB-1232	0.25	ug	U	8/25/16	1
53469219	PCB-1242	0.25	ug	U	8/25/16	1
12672296	PCB-1248	0.25	ug	U	8/25/16	1
11097691	PCB-1254	0.25	ug	U	8/25/16	1
11096825	PCB-1260	0.25	ug	U	8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	94	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	104	%Rec		8/25/16	1

Sample : 92O082416L1 Lab Control Std

Information : Lab Control Standard
Matrix : Swab **Weight Basis :** N/A

Parameter : PCB
Prep Method: 3580A - Waste Dilution
Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Spiked Compounds:						
12674112	PCB-1016	102	%Rec		8/25/16	1
11096825	PCB-1260	103	%Rec		8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	99	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	106	%Rec		8/25/16	1

Sample : 92O082416L2 Lab Control Std#2

Information : Lab Control Standard Dup.

Matrix : Swab **Weight Basis :** N/A

Parameter : PCB

Prep Method: 3580A - Waste Dilution

Analysis Method: 8082A - Polychlorinated Biphenyls by GC/ECD

Analyte Code	Analyte Name	Result	Unit	Qual.	Analysis Date	Dilution
Spiked Compounds:						
12674112	PCB-1016	101	%Rec		8/25/16	1
11096825	PCB-1260	103	%Rec		8/25/16	1
Surrogate Compounds:						
2051243	PCB Congener 209	100	%Rec		8/25/16	1
877098	Tetrachlorometaxylene	106	%Rec		8/25/16	1

Wood, Kim

From: Moore, Kendall
Sent: Thursday, September 01, 2016 10:15 AM
To: Dodo, Gerald; Mullin, Michelle
Cc: Norton, Karen; Wood, Kim; Pace, Christopher; Ramanauskas, Peter; Peachey, Robert
Subject: Re: Preliminary Results for Sky Valley Education Center

Thanks all, if I'm right, the U means all samples were below the detection limit of 2.5 ug.

From: Dodo, Gerald
Sent: Thursday, September 1, 2016 11:09:35 AM
To: Mullin, Michelle; Moore, Kendall
Cc: Norton, Karen; Wood, Kim; Pace, Christopher
Subject: FW: Preliminary Results for Sky Valley Education Center

The information in this message is being supplied to you at your request as 'Preliminary Results'. Results have not undergone the same level of review as a final report. Once all reviews have taken place, it is possible that results
in the final report may vary from those in this report.

Gerald Dodo
Supervisory Chemist
DWCO
USEPA Region 10 Laboratory
7411 Beach Dr. East
Port Orchard, WA 98366

Phone: (360) 871-8728
FAX: 360-871-8748

From: Wood, Doug
Sent: Thursday, September 01, 2016 9:00 AM
To: Pace, Christopher <Pace.Christopher@epa.gov>; Dodo, Gerald <Dodo.Gerald@epa.gov>
Subject: Preliminary Results for Sky Valley Education Center

Sample Number	Results
16334000	2.5 ug U
16334001	2.5 ug U
16334002	2.5 ug U
16334003	2.5 ug U
16334004	2.3 ug/g U

Doug Wood
Chemist
USEPA Region 10 Laboratory
7411 Beach Drive East
Port Orchard WA 98366
Phone#:(360) 871-8772

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366

CHECKLIST FOR PROJECT FILES

(All files should be complete)

Initials	Date	
KM	8/19	Chain of Custody
		Cover Letter with cc list
		Sample Receipt Checklist - Blue
		Copy of Shipping Documents
		Project Request Form
		Project related E-mail Messages
		Sample Log-In Report
E	NA	Corrective Action Notice
KM	8/19	Received SOP Excursion Approval Form
		Email Notification of Sample Arrival
		Log In Coolers & COC's
		Folders and COC copies to the following analysts:

Doug Wood

Signature: KNWood Date: 8/22/16

Peer Review: K. Wood Date: 8/23/16

Revised: June 21, 2011 KN
Version 4

US EPA Region 10 Laboratory

Sample Login Report

8/19/2016

OCE-009B SKY VALLEY EDUCATION CENTER

Contact: Michelle Mullin

20162017B10P501E50

Sample ID	Sample Information	Received D/T	Matrix	Sample D/T	Lab Area	Parameter	Due Date	Container Codes
16334000	4oz Blank Wipe R01	8/19/16 9:39	Wipe	8/18/16 10:40	Organics	PCB	10/14/16	N1
16334001	40mL Blank R02	8/19/16 9:39	Solid	8/18/16 11:45	Organics	PCB	10/14/16	N1
16334002	Wipe of Classroom D Floor S01	8/19/16 9:39	Wipe	8/18/16 10:50	Organics	PCB	10/14/16	N1
16334003	Soild Insulation Material S02	8/19/16 9:39	Solid	8/18/16 11:20	Organics	PCB	10/14/16	N1
16334004	Wipe of Pneumatic Pump S03	8/19/16 9:39	Wipe	8/18/16 11:50	Organics	PCB	10/14/16	N1

Norton, Karen

From: Norton, Karen
Sent: Friday, August 19, 2016 11:11 AM
To: Gerald Dodo; Christopher Pace; Doug Wood; Kim Wood
Subject: Sample Arrival- Sky Valley Education Center OCE-009B
Attachments: SHARPSCANNER_20160819_095211.pdf

3 wipes and 2 solid samples were hand delivered for PCB analysis.

Prelims due by 8/31/16

Karen Norton
TechLaw, Inc.
Data Entry- Region 10 ESAT
(360) 871-8760

Norton, Karen

From: Dodo, Gerald
Sent: Thursday, August 11, 2016 7:08 AM
To: Mullin, Michelle; Crawford, Jennifer
Cc: Norton, Karen; Wood, Kim; Pace, Christopher; Wood, Doug; Pepich, Barry
Subject: Completed - FW: SKY VALLEY EDUCATION CENTER PCB INSPECTION (Event 2), OCE-009B -- FORMAL REQUEST
Attachments: RSCC field information sheet for sampling-shipping SkyValleyPCB-R5Inspection 8-10-2016.pdf; R Appendix Excursion Approval Form.doc

Please see the attached SOP Excursion form which I need a project manager to fill out and return to me. Fax is okay too (360-871-8747). This form is needed to support our NELAC accreditation. If you have any questions please contact me.

Gerald Dodo
Supervisory Chemist
DWCO
USEPA Region 10 Laboratory
7411 Beach Dr. East
Port Orchard, WA 98366

Phone: (360) 871-8728
FAX: 360-871-8748

From: Crawford, Jennifer
Sent: Wednesday, August 10, 2016 4:52 PM
To: Pepich, Barry <Pepich.Barry@epa.gov>; Dodo, Gerald <Dodo.Gerald@epa.gov>; Pace, Christopher <Pace.Christopher@epa.gov>; Walker, Dana M. <walker.danam@epa.gov>; Wood, Doug <Wood.Doug@epa.gov>; Reimer, Steve <Reimer.Steve@epa.gov>; Coogan, Patricia <Coogan.Patricia@epa.gov>; Norton, Karen <Norton.Karen@epa.gov>; Wood, Kim <Wood.Kim@epa.gov>
Cc: Mullin, Michelle <Mullin.Michelle@epa.gov>; Moore, Kendall <moore.kendall@epa.gov>; Matheny, Don <Matheny.Don@epa.gov>
Subject: SKY VALLEY EDUCATION CENTER PCB INSPECTION (Event 2), OCE-009B -- FORMAL REQUEST

EPA Region 10 Laboratory (MEL)
Formal Analytical Support Request

Project Name: Sky Valley Education Center PCB Inspection (Event 2) – Monroe, WA
Project Code: OCE-009B
Account Code: 20162017B10P501E50
Sample Numbers: 16334000-4049 for samples collected the week of August 14-20, 2016

	Criminal	Superfund Remedial	Compliance Monitoring	Drinking Water Programs	Surface Water Protection	RCRA CA	Brownfields	Other (specify)
Program / Project*			X - TSCA					
NPM*	OECA	OSWER	OECA	OW	OW	OSWER	OSWER	

* 'X' the Program/ Project then change 'frequent' NPM below if necessary. For compliance monitoring/criminal projects, also write in the specific data use such as RCRA,

NPDES, TSCA, etc. after the 'X'. For surface water, specify 'TMDL' after the 'X' if applicable.

RAP ANALYSES REQUESTED:

PARAMETER OR GROUP OF COMPOUNDS	METHOD	REPORTING LIMITS	# Wipe Samples*	# Caulk Samples**
PCBs	EPA 3580A + 8082 (for wipe and caulk)	2.5 ug/wipe 50 mg/kg - caulk	7	2

*MEL will be providing hexane wipes for the project. Includes 5 samples + field QC – 1 wipe blank and 1 duplicate
** Caulk samples will be submitted by scraping a small amount of material into a 40mL VOA vial

Sampling/Shipping Dates: Sampling 8/17-18 with lab hand delivery by R5 inspector Kendall Moore on 8/19.
Turnaround Time Requested: **Preliminary results requested before 8/31.** Standard 8 weeks for final results.
Q.A. Chemist Reviewing QAPP: Region 5 programmatic generic inspection QAPP / Jennifer Crawford
Final Data Will Be Sent to: Michelle Mullin (R10), Kendall Moore (R5 Inspector)
Who Reviews?: MEL for MEL
Project Manager: Michelle Mullin **Phone**: 260-553-1616
Has this project been previously requested/if so when? Yes – 3/2016 for OCE-009A
Comments: R5 generic QAPP is being used for this sampling event per the R5 inspector (previously provided to MEL). Attached are the R10 documentation instructions.

Requested by: Jennifer Crawford
Chemist/RSCC
Phone: (206) 553-6261
Crawford.Jennifer@epa.gov

Date: August 10, 2016

BELOW FOR LAB USE ONLY

Accepted Parameters: PCBs (EPA).

Rejected Parameters: None.

Comments:

Transmitted by: Gerald Dodo Date: 8/11/2016

Norton, Karen

From: Crawford, Jennifer
Sent: Wednesday, August 10, 2016 4:52 PM
To: Pepich, Barry; Dodo, Gerald; Pace, Christopher; Walker, Dana M.; Wood, Doug; Reimer, Steve; Coogan, Patricia; Norton, Karen; Wood, Kim
Cc: Mullin, Michelle; Moore, Kendall; Matheny, Don
Subject: SKY VALLEY EDUCATION CENTER PCB INSPECTION (Event 2), OCE-009B -- FORMAL REQUEST
Attachments: RSCC field information sheet for sampling-shipping SkyValleyPCB-R5Inspection 8-10-2016.pdf

EPA Region 10 Laboratory (MEL)
Formal Analytical Support Request

Project Name: Sky Valley Education Center PCB Inspection (Event 2) – Monroe, WA
Project Code: OCE-009B
Account Code: 20162017B10P501E50
Sample Numbers: 16334000-4049 for samples collected the week of August 14-20, 2016

	Criminal	Superfund Remedial	Compliance Monitoring	Drinking Water Programs	Surface Water Protection	RCRA CA	Brownfields	Other (specify)
Program / Project*			X - TSCA					
NPM*	OECA	OSWER	OECA	OW	OW	OSWER	OSWER	

* 'X' the Program/ Project then change 'frequent' NPM below if necessary. For compliance monitoring/criminal projects, also write in the specific data use such as RCRA,
NPDES, TSCA, etc. after the 'X'. For surface water, specify 'TMDL' after the 'X' if applicable.

RAP ANALYSES REQUESTED:

PARAMETER OR GROUP OF COMPOUNDS	METHOD	REPORTING LIMITS	# Wipe Samples*	# Caulk Samples**
PCBs	EPA 3580A + 8082 (for wipe and caulk)	2.5 ug/wipe 50 mg/kg - caulk	7	2

*MEL will be providing hexane wipes for the project. Includes 5 samples + field QC – 1 wipe blank and 1 duplicate
** Caulk samples will be submitted by scraping a small amount of material into a 40mL VOA vial

Sampling/Shipping Dates: Sampling 8/17-18 with lab hand delivery by R5 inspector Kendall Moore on 8/19.
Turnaround Time Requested: **Preliminary results requested before 8/31.** Standard 8 weeks for final results.
Q.A. Chemist Reviewing QAPP: Region 5 programmatic generic inspection QAPP / Jennifer Crawford
Final Data Will Be Sent to: Michelle Mullin (R10), Kendall Moore (R5 Inspector)
Who Reviews?: MEL for MEL
Project Manager: Michelle Mullin Phone: 260-553-1616
Has this project been previously requested/if so when? Yes – 3/2016 for OCE-009A
Comments: R5 generic QAPP is being used for this sampling event per the R5 inspector (previously provided to MEL). Attached are the R10 documentation instructions.

Requested by: Jennifer Crawford
Chemist/RSCC
Phone: (206) 553-6261
Crawford.Jennifer@epa.gov

Date: August 10, 2016

BELOW FOR LAB USE ONLY

Accepted Parameters:

Rejected Parameters:

Comments:

Transmitted by: _____ Date: _____

Norton, Karen

From: Crawford, Jennifer
Sent: Wednesday, August 10, 2016 3:54 PM
To: Norton, Karen; Wood, Kim
Subject: OCe-009B - draft for review - rev sample documentation instructions
Attachments: RSCC field information sheet for sampling-shipping SkyValleyPCB-R5Inspection 8-10-2016.docx

Hi there,
Any changes needed on this document based on last round? =) If so let me know. Thanks so much!
Jenn

Norton, Karen

From: Crawford, Jennifer
Sent: Monday, August 08, 2016 10:23 AM
To: Dodo, Gerald; Mullin, Michelle; Moore, Kendall
Cc: Januch, Jed; Richmond, Brent; Wood, Doug; Pace, Christopher; Norton, Karen; Wood, Kim
Subject: RE: PCB inspection by R5 Sky Valley OCE-009B - draft supply list and some questions!

Michelle, please let us know if this is acceptable and I will get the request out to MEL. Thanks,
Jennifer

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Gerald Dodo
Supervisory Chemist
DWCO
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7411 Beach Dr. East
Port Orchard, WA 98366

Phone: (360) 871-8728
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From: Mullin, Michelle
Sent: Friday, August 05, 2016 4:15 PM
To: Moore, Kendall <moore.kendall@epa.gov>; Crawford, Jennifer <Crawford.Jennifer@epa.gov>
Cc: Januch, Jed <Januch.Jed@epa.gov>; Richmond, Brent <Richmond.Brent@epa.gov>; Dodo, Gerald <Dodo.Gerald@epa.gov>; Wood, Doug <Wood.Doug@epa.gov>; Pace, Christopher <Pace.Christopher@epa.gov>; Norton, Karen <Norton.Karen@epa.gov>; Wood, Kim <Wood.Kim@epa.gov>
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- Gloves (Size?) large
- scraping tool (metal spatula, or similar or even wooden tongue depressors),
- labels – ESS type with printed information
- Chain of Custody forms (3)
- coolers (1, smaller as not many samples)
- Clear packing tape for labels, cooler, etc.
- Bubble bags for wipes and vials after sampling
- Small Plastic bags for enclosing wipes and vials after bubble wrap

Norton, Karen

From: Crawford, Jennifer
Sent: Monday, August 08, 2016 8:51 AM
To: Mullin, Michelle; Moore, Kendall
Cc: Januch, Jed; Dodo, Gerald; Wood, Doug; Pace, Christopher; Norton, Karen; Wood, Kim
Subject: RE: PCB inspection by R5 Sky Valley OCE-009B - draft supply list and some questions!

It was my understanding that the caulk analysis capacity has to be developed at MEL – demonstration of capability, etc. Given that, and the short notice of sampling I am not sure a 2 week TAT is possible. Gerald / Chris can you please address this request and what you anticipate for MEL TAT on the caulk?
Thanks!
Jennifer

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- coolers (1, smaller as not many samples)

- Clear packing tape for labels, cooler, etc.

- Bubble bags for wipes and vials after sampling

- Small Plastic bags for enclosing wipes and vials after bubble wrap

- Large plastic bags (2) for COC

- Custody Seals

- other sample collection supplies if you think of something else. Extra loose gauze and a small container (4 to 8 oz)of extra hexane

(Samples will not be iced.)

Jennifer Crawford
USEPA R10 Chemist - QA/RSCC/CLP COR Alt.
1200 Sixth Avenue Suite 900, OERA-140, Seattle, WA 98101
crawford.jennifer@epa.gov / (206) 553-6261

From: Dodo, Gerald
Sent: Thursday, August 04, 2016 3:29 PM
To: Crawford, Jennifer <Crawford.Jennifer@epa.gov>; Mullin, Michelle <Mullin.Michelle@epa.gov>
Cc: Moore, Kendall <moore.kendall@epa.gov>; Peachey, Robert <peachey.robert@epa.gov>; Pace, Christopher <Pace.Christopher@epa.gov>
Subject: RE: R5 lab needs for Sky Valley Education Center Inspection

I should also mention that the wipes we analyzed earlier were by Method 3580A where the sample was shakened with solvent for extracting the PCBs. The associated QC analyses (matrix spikes and LCSs) resulted with good recoveries. This is normally how we've analyzed wipes for PCBs.

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Sent: Thursday, August 04, 2016 2:32 PM
To: Crawford, Jennifer <Crawford.Jennifer@epa.gov>; Mullin, Michelle <Mullin.Michelle@epa.gov>
Cc: Moore, Kendall <moore.kendall@epa.gov>; Peachey, Robert <peachey.robert@epa.gov>; Pace, Christopher <Pace.Christopher@epa.gov>
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Page 18 of the linked document describes a procedure for caulk which could be considered but we would need more time to set-up and test. We don't have soxhlets anymore (3540C) and no sonic probe (3550C) but we can extract wipes and caulk by 3541 (soxtherm or automated soxhlet). We view the extraction process between 3540C and 3541 to be essential the same. I should point out that Steve Reimer recalls from long ago that caulk made with PCBs has percent levels of Aroclor 1254.

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Thanks Michelle. The R10 lab hasn't done caulk analysis before. They found the following: http://nepis.epa.gov/Adobe/PDF/P100FEC6.pdf

Gerald what do you have to say about the methods Michelle indicated below?

RE Equipment: the wipes will be prepared this week. Kendall can you update the supply list from last time for what you need this event so we can make sure it includes all you need? If you don't have that let me know and I can dig it up from email. =)
Thanks!
Jennifer

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Hi Jennifer,
This is what our regs say about extraction and analysis. But I think that Megan told me the lab is only set up to do automated soxhalet.
"EPA Method 3500B/3540C or Method 3500B/3550B followed by chemical analysis using EPA Method 8082 in SW-846 or methods validated under subpart Q of this part"
In previous investigations I've not had a problem with using automated, but we weren't building an enforcement case. Kendall- do you know if using a method other than in the regs would weaken our case? Also ccing Bob Peachy.

Michelle

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Sent: Thursday, August 04, 2016 8:12 AM
To: Mullin, Michelle <Mullin.Michelle@epa.gov>
Cc: Moore, Kendall <moore.kendall@epa.gov>
Subject: RE: R5 lab needs for Sky Valley Education Center Inspection

Hi Michelle,
What extraction method did you say is needed for the caulk when we were messaging? thanks.
Jennifer

From: Mullin, Michelle
Sent: Monday, August 01, 2016 5:17 PM
To: Crawford, Jennifer <Crawford.Jennifer@epa.gov>
Cc: Moore, Kendall <moore.kendall@epa.gov>
Subject: R5 lab needs for Sky Valley Education Center Inspection

Hi Jennifer-

I am writing to request support for Kendall's upcoming inspection at Sky Valley Education Center.

He will be visiting and inspecting the week of Aug 8 or 15.

He will need supplies to collect a total of 5 wipe samples and QA/QC
Also, can Manchester process caulk for PCB analysis? He would potentially like to collect a sample or two of that.

I will not be in town during his visit, so if you could help coordinate pick up and drop off of the supplies, that would be great, Jennifer. Or somebody else in OEA?

Please let me know if you have any questions.

Thanks,
Michelle Mullin
3-1616

Norton, Karen

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Sent: Monday, August 08, 2016 3:35 PM
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This is acceptable to me. I'm hoping that Kendall or Bob will weigh in as to if this is acceptable for enforcement purposes.

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Cc: Januch, Jed <Januch.Jed@epa.gov>; Richmond, Brent <Richmond.Brent@epa.gov>; Dodo, Gerald <Dodo.Gerald@epa.gov>; Wood, Doug <Wood.Doug@epa.gov>; Pace, Christopher <Pace.Christopher@epa.gov>; Norton, Karen <Norton.Karen@epa.gov>; Wood, Kim <Wood.Kim@epa.gov>
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3-1616

Norton, Karen

From: Moore, Kendall
Sent: Friday, August 05, 2016 1:42 PM
To: Crawford, Jennifer; Mullin, Michelle
Cc: Januch, Jed; Richmond, Brent; Dodo, Gerald; Wood, Doug; Pace, Christopher; Norton, Karen; Wood, Kim
Subject: RE: PCB inspection by R5 Sky Valley OCE-009B - draft supply list and some questions!

Hey Jennifer, thanks for following up. Please see my answers below in red. I submitted my TA today. I'm scheduled to arrive in Seattle the morning of August 17 so I'll pick up the supplies that afternoon. I booked a return flight for August 20. This will allow me to drop samples at the lab the afternoon of August 19 (or earlier).
Thanks so much for your help.

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3-1616

Norton, Karen

From: Crawford, Jennifer
Sent: Friday, August 05, 2016 11:10 AM
To: Dodo, Gerald; Wood, Doug
Cc: Pace, Christopher; Norton, Karen; Wood, Kim
Subject: RE: PCB Reporting Limit for Sky Valley PCB Inspection, OCE-009B

Hello,
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Subject: PCB Reporting Limit for Sky Valley PCB Inspection, OCE-009A

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Drinking Water Certification Officer
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(360) 871-8703

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Oh ☺! Thanks. Then a fast TAT is requested if possible, two weeks or less for the wipes. We can wait longer for the caulk. And yes, I'll pick up in Seattle again. for the wipes the action limit will be 10 ug/wipe. But anything above 1 ug/wipe will be noteworthy. The caulk has an action level of 50 ppm.

From: Crawford, Jennifer
Sent: Friday, August 05, 2016 3:45 PM
To: Moore, Kendall <moore.kendall@epa.gov>
Subject: RE: PCB inspection by R5 Sky Valley OCE-009B - draft supply list and some questions!

Thanks! TAT is turnaround time – when you need the caulk results by. As noted, it needs to be developed so unlikely to meet the 2 week/poss 8 week range but I will let the lab confirm that!
For pickup, you are planning on picking up here in Seattle again, right?

- And I forgot to highlight this question: Is there are particular reporting limit / regulatory criteria you need for non-detects of caulk?

Have a great weekend!

From: Moore, Kendall
Sent: Friday, August 05, 2016 1:42 PM
To: Crawford, Jennifer <Crawford.Jennifer@epa.gov>; Mullin, Michelle <Mullin.Michelle@epa.gov>
Cc: Januch, Jed <Januch.Jed@epa.gov>; Richmond, Brent <Richmond.Brent@epa.gov>; Dodo, Gerald <Dodo.Gerald@epa.gov>; Wood, Doug <Wood.Doug@epa.gov>; Pace, Christopher <Pace.Christopher@epa.gov>; Norton, Karen <Norton.Karen@epa.gov>; Wood, Kim <Wood.Kim@epa.gov>
Subject: RE: PCB inspection by R5 Sky Valley OCE-009B - draft supply list and some questions!

Hey Jennifer, thanks for following up. Please see my answers below in red. I submitted my TA today. I'm scheduled to arrive in Seattle the morning of August 17 so I'll pick up the supplies that afternoon. I booked a return flight for August 20. This will allow me to drop samples at the lab the afternoon of August 19 (or earlier).
Thanks so much for your help.

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- other sample collection supplies if you think of something else. Extra loose gauze and a small container (4 to 8 oz)of extra hexane

(Samples will not be iced.)

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I will not be in town during his visit, so if you could help coordinate pick up and drop off of the supplies, that would be great, Jennifer. Or somebody else in OEA?

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Thanks,
Michelle Mullin
3-1616

Norton, Karen

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Sent: Friday, August 05, 2016 4:15 PM
To: Moore, Kendall; Crawford, Jennifer
Cc: Januch, Jed; Richmond, Brent; Dodo, Gerald; Wood, Doug; Pace, Christopher; Norton, Karen; Wood, Kim
Subject: RE: PCB inspection by R5 Sky Valley OCE-009B - draft supply list and some questions!

For the caulk TAT (Turn around Time) we would like preliminary results 2 weeks or sooner, same as wipes, so that we can make a decision by Aug 31.

Is that possible?

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Please let me know if you have any questions.

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Sent: Thursday, August 04, 2016 10:08 AM
To: Crawford, Jennifer; Richmond, Brent; Januch, Jed; Pace, Christopher
Cc: Norton, Karen; Wood, Kim; Wood, Doug
Subject: RE: R5 lab needs for Sky Valley Education Center Inspection OCE-009B

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Michelle Mullin
3-1616

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To: Dodo, Gerald; Richmond, Brent; Januch, Jed; Pace, Christopher
Cc: Norton, Karen; Wood, Kim; Wood, Doug
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Thanks! I have the caulk method inquiry into Michelle/Kendall and have forwarded the method you found as well. Stay tuned! =)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366

LABORATORY SAMPLE RECEIPT CHECKLIST

PROJECT CODE: OCE-009B **PROJECT NAME:** SkyValley

- ✓ Screen the outside of the sample cooler for possible radiation.
- ✓ Note if custody seals are intact on the outside of the sample cooler.
- NA Obtain cooler temperature with a temperature probe. Record temperatures above 6° C on the reserve side of this form. A Corrective Action Notice (CAN) must be written if the samples in the cooler require preservation at 6° C or cooler. Not Iced
- NA Contact EPA R10 Lab ESHO if samples are packed in vermiculite.
- ✓ Screen the inside of the cooler for possible radiation.
- ✓ Verify required sample paperwork is present and complete: Sample Custody & Analysis Required Form or USEPA Contract Laboratory Program Generic Chain of Custody. (COC) Note any missing information or paperwork discrepancies on the reverse side of this form as documentation for a CAN.
- ✓ Verify all samples are present by checking the containers against the COC.
- ✓ Verify that there is a container for each type of analysis requested and sample container unique ID's are on all containers.
- ✓ Place color-coded sticker dots on each of the sample containers (only exception, water samples for VOA.)
- NA If criminal samples, place an Evidence Sticker on each sample container without covering sample information.
- NA If criminal samples, pictures taken of outside of cooler with custody seals, inside of cooler (packing), and samples with chain of custody. Photograph any broken or damaged samples.
- ✓ If samples are to be analyzed for PCBs or Asbestos, place the appropriate warning sticker on each sample container without covering sample information.
- ✓ Contact an analyst if water samples are received for general chemistry, metals, or microbiology analyses (so the pH can be checked and/or analysis can be started immediately if necessary). Doug Wood
- ✓ Complete the custody section of the COC with your signature, date and time received. Indicate samples were "GOOD" if ice present, none were broken, and none were leaking. Indicate the condition of the custody seals. If any sample was not present or any corrections need to be made to the sample paperwork, draw one line through the line item to be changed and initial and date the correction. KEEP ALL CHANGES TO SAMPLE PAPERWORK TO A MINIMUM. ONLY WHEN NECESSARY

SHOULD CHANGES BE MADE BY SAMPLE RECEIPT STAFF.

NA Make notes of any paperwork or sample bottle discrepancies on the lines at the bottom of this form. If necessary, complete a CAN when paperwork has been delivered to data entry.

NA Did we receive shipping information for returning non-EPA coolers? If not, document it with a CAN.

✓ Storage: Load the samples on a cart and take them to either cooler #57 if the samples are Non-Superfund, cooler #61 if the samples are Superfund, or to a freezer in the warehouse or swing-lab building if samples should be kept frozen. If samples are for criminal evidence, two persons must be present to place them in a criminal custody refrigerator in room #77. Record the placement of the samples on the criminal sign in/out log.

✓ Deliver the sample paperwork to data entry for computer login and paperwork distribution.

Signature: [signature] Date: 8/19/16

*EPA Signature: _____ Date: _____

Required only when the contractor submitting samples to the EPA R10 Laboratory is the same contractor for the R10 ESAT when performing sample receipt.

NOTES

Number of Coolers Received: 1

Number of Chains of Custody Received: 1

Revised: January 22, 2015 KN/CH
Version 8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366

DATA ENTRY TRACKING FORM

SECTION #1 – DELIVERY TO DATA ENTRY
(TO BE COMPLETED BY THE PERSON DELIVERING THE DATA PACKAGE)

Project Name: Sky Valley	**Project Code:** OCE-009B
Analysis Type: PCB	**Matrix:** Wipe/Insulation
Sample Numbers: week 33	**Delivered by:** Chris Pace
Date: 10/11/16	**Time:** 1100

SECTION #2 – DATA ENTRY
(TO BE COMPLETED BY ESAT DATA ENTRY TECHNICIANS)

IN:	OUT:
Date: 10/11/16	**Date:** 10/11/16
Time: 1200	**Time:** 1500
By:	**By:**

SECTION #3 – EPA DATA ENTRY VERIFICATION
(TO BE COMPLETED BY THE EPA DATA VERIFIER)

Date: 10.11.16	**Time:** 3:32
By:	

Check here if corrections needed→ ☐

SECTION #4 – DATA ENTRY MODIFICATIONS (IF APPLICABLE)
(TO BE COMPLETED BY ESAT DATA ENTRY TECHNICIANS)

IN:	OUT:
Date:	**Date:**
Time:	**Time:**
By:	**By:**

SECTION #5 – EPA DATA ENTRY VERIFICATION #2 (IF APPLICABLE)

Sky Valley

(TO BE COMPLETED BY THE EPA DATA VERIFIER)

Date:	Time:
By:	

SECTION #6 – EPA MICROBIOLOGY DATA PACKAGE REVIEW (IF APPLICABLE)
(TO BE COMPLETED BY THE MICORBIOLOGY SECTION LEAD OR ALTERNATE)

Data Package Delivered to Microbiology Lead	Date:	By:
Data Package Reviewed & Approved	Date:	By:

SECTION #7 – FINAL REPORT GENERATION AND ELECTRONIC REPORTING OF DATA (TO BE COMPLETED BY ESAT DATA ENTRY TECHNICIANS)

Final report generated and forwarded electronically with the Data Release Form and QA Memorandum to the Lab Director or Chemistry Supervisor. Place a hardcopy for signature in the Lab Director's or Chemistry Supervisor's inbox.	
Delivered to: G. Dodd	
Date: 10/12/16	By:

SECTION #8–APPROVAL & RELEASE BY LAB DIRECTOR OR CHEMISTRY SUPERVISOR

Revisions Required? YES (NO)

If no, complete approval area at bottom of form. If yes, source of problem:

Document(s) Requiring Revision:

- ☐ Data Release Form
- ☐ QA Memo
- ☐ Final Report of Data

Date returned to data entry to coordinate revisions:

Revisions Made By:	Date:
Data Reviewer:	
Data Entry:	
Re-verified by EPA:	
Resubmitted to Lab Director or Chemistry Supervisor:	
Approved by Lab Director or Chemistry Supervisor:	10-12-16

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334000
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Wipe/Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed: 10/11/16 CP
Promised:

VERIFIED 10/11/16 MR **Analysis Seq :** 7

Initial Amount: No Unit **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 10:28 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	105	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	100	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334001
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Solid
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed: 10/11/16 CP
Promised: 10/14/16

VERIFIED 10/11/16 **Analysis Seq :** 8

Initial Amount: 1 g **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 10:53 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	113	%Rec		
2	11104282	PCB-1221	Target	250	ug/kg	U	250ug/kg
3	11141165	PCB-1232	Target	250	ug/kg	U	250ug/kg
4	12674112	PCB-1016	Target	250	ug/kg	U	250ug/kg
5	53469219	PCB-1242	Target	250	ug/kg	U	250ug/kg
6	12672296	PCB-1248	Target	250	ug/kg	U	250ug/kg
7	11097691	PCB-1254	Target	250	ug/kg	U	250ug/kg
8	11096825	PCB-1260	Target	250	ug/kg	U	250ug/kg
9	2051243	PCB Congener 209	Surrogate	106	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334002
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Wipe/Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed: 10/11/16 CP
Promised:

VERIFIED 10/11/16 **Analysis Seq :** 9

Initial Amount: No Unit **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 11:17 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	111	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	103	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334003
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Solid
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed: 10/11/16 CP
Promised: 10/14/16

VERIFIED 10/11/16 **Analysis Seq :** 10

Initial Amount: 1.1 g **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 11:42 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	114	%Rec		
2	11104282	PCB-1221	Target	230	ug/kg	U	230ug/kg
3	11141165	PCB-1232	Target	230	ug/kg	U	230ug/kg
4	12674112	PCB-1016	Target	230	ug/kg	U	230ug/kg
5	53469219	PCB-1242	Target	230	ug/kg	U	230ug/kg
6	12672296	PCB-1248	Target	230	ug/kg	U	230ug/kg
7	11097691	PCB-1254	Target	230	ug/kg	U	230ug/kg
8	11096825	PCB-1260	Target	230	ug/kg	U	230ug/kg
9	2051243	PCB Congener 209	Surrogate	108	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334004
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Wipe/Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed: 10/11/16 CP
Promised:

VERIFIED 10/11/16 **Analysis Seq :** 11

Initial Amount: No Unit **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 12:07 pm
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	109	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	60	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 92O082416B1
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Blank
Project Officer: Michelle Mullin **Matrix:** Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: Prepped: 8/24/16 Released:
Received: Reviewed: 10/11/16 CP
Promised:

VERIFIED 10/11/16 **Analysis Seq :** 4

Initial Amount: No Unit **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 9:14 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	104	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	94	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 92O082416L1
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Lab Control Std
Project Officer: Michelle Mullin **Matrix:** Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: Prepped: 8/24/16 Released:
Received: Reviewed: 10/11/16 CP
Promised:

VERIFIED 10/11/16 MR **Analysis Seq :** 5

Initial Amount: No Unit **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 9:39 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	106	%Rec		
4	12674112	PCB-1016	Spike	102	%Rec		0.25ug
8	11096825	PCB-1260	Spike	103	%Rec		0.25ug
9	2051243	PCB Congener 209	Surrogate	99	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 92O082416L2
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Lab Control Std Dup.
Project Officer: Michelle Mullin **Matrix:** Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: Prepped: 8/24/16 Released:
Received: Reviewed: 10/11/16 CP
Promised:

VERIFIED 10/11/16 CWR **Analysis Seq :** 6

Initial Amount: No Unit **Weight Basis:** N/A **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 10:03 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	106	%Rec		
4	12674112	PCB-1016	Spike	101	%Rec		0.25ug
8	11096825	PCB-1260	Spike	103	%Rec		0.25ug
9	2051243	PCB Congener 209	Surrogate	100	%Rec		

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334000
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Wipe/Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed:
Promised:

VERIFIED ___/___/___ _____ **Analysis Seq :** 7

Initial Amount: ~~40 mL~~ NA 10/11/16 **Weight Basis:** ~~Dry~~ ← For all → **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 10:28 am **%Solids:** ~~100~~
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	105	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	100	%Rec		

COPY

COPY

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334001
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Solid
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed:
Promised: 10/14/16

VERIFIED ___/___/___ _____ **Analysis Seq :** 8

Initial Amount: 1 g **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL **%Solids:** * 100
Dilution Factor: 1 **Analyzed:** 8/25/16 10:53 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	113	%Rec		
2	11104282	PCB-1221	Target	250	ug/kg	U	250ug/kg
3	11141165	PCB-1232	Target	250	ug/kg	U	250ug/kg
4	12674112	PCB-1016	Target	250	ug/kg	U	250ug/kg
5	53469219	PCB-1242	Target	250	ug/kg	U	250ug/kg
6	12672296	PCB-1248	Target	250	ug/kg	U	250ug/kg
7	11097691	PCB-1254	Target	250	ug/kg	U	250ug/kg
8	11096825	PCB-1260	Target	250	ug/kg	U	250ug/kg
9	2051243	PCB Congener 209	Surrogate	106	%Rec		

COPY

COPY

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334002
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Wipe/Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed:
Promised:

VERIFIED ___/___/___ _____ **Analysis Seq :** 9

Initial Amount: ~~40 mL~~ MA CP 10/11/16 **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL **%Solids:** * 100
Dilution Factor: 1 **Analyzed:** 8/25/16 11:17 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	111	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	103	%Rec		

COPY

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334003
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Solid
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed:
Promised: 10/14/16

VERIFIED ___/___/___ _____ **Analysis Seq :** 10

Initial Amount: 1.1 g **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL **%Solids:** * 100
Dilution Factor: 1 **Analyzed:** 8/25/16 11:42 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	114	%Rec		
2	11104282	PCB-1221	Target	230	ug/kg	U	230ug/kg
3	11141165	PCB-1232	Target	230	ug/kg	U	230ug/kg
4	12674112	PCB-1016	Target	230	ug/kg	U	230ug/kg
5	53469219	PCB-1242	Target	230	ug/kg	U	230ug/kg
6	12672296	PCB-1248	Target	230	ug/kg	U	230ug/kg
7	11097691	PCB-1254	Target	230	ug/kg	U	230ug/kg
8	11096825	PCB-1260	Target	230	ug/kg	U	230ug/kg
9	2051243	PCB Congener 209	Surrogate	108	%Rec		

COPY
16334003 Sample

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 16334004
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Sample
Project Officer: Michelle Mullin **Matrix:** Wipe/Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: 8/18/16 Prepped: 8/24/16 Released:
Received: 8/19/16 Reviewed:
Promised:

VERIFIED ___/___/___ _____ **Analysis Seq :** 11

Initial Amount: ~~40 mL~~ NA CR 10/11/16 **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL **%Solids:** * 100
Dilution Factor: 1 **Analyzed:** 8/25/16 12:07 pm
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	109	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	60	%Rec		

COPY

COPY

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 92O082416B1
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Blank
Project Officer: Michelle Mullin **Matrix:** Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: Prepped: 8/24/16
Received: Released:
Reviewed:
Promised:

VERIFIED ___/___/___ _____ **Analysis Seq :** 4

Initial Amount: ~~40 mL~~ NA **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL **%Solids:** * 100
Dilution Factor: 1 **Analyzed:** 8/25/16 9:14 am
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

CS 10/11/16 10/16

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	104	%Rec		
2	11104282	PCB-1221	Target	0.25	ug	U	0.25ug
3	11141165	PCB-1232	Target	0.25	ug	U	0.25ug
4	12674112	PCB-1016	Target	0.25	ug	U	0.25ug
5	53469219	PCB-1242	Target	0.25	ug	U	0.25ug
6	12672296	PCB-1248	Target	0.25	ug	U	0.25ug
7	11097691	PCB-1254	Target	0.25	ug	U	0.25ug
8	11096825	PCB-1260	Target	0.25	ug	U	0.25ug
9	2051243	PCB Congener 209	Surrogate	94	%Rec		

COPY

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 92O082416L1
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Lab Control Std
Project Officer: Michelle Mullin **Matrix:** Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: Prepped: 8/24/16
Received: Released:
Reviewed:
VERIFIED ___/___/___ _____ Promised:
Analysis Seq : 5

Initial Amount: ~~40 mL~~ NA cr 10/11/16 **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 9:39 am **%Solids:** * 100
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	106	%Rec		
4	12674112	PCB-1016	Spike	102	%Rec		0.25ug
8	11096825	PCB-1260	Spike	103	%Rec		0.25ug
9	2051243	PCB Congener 209	Surrogate	99	%Rec		

COPY

Project Code: OCE-009B **Parameter:** PCB **Sample ID:** 92O082416L2
Project Name: SKY VALLEY EDUCATION CENTER **Type:** Lab Control Std Dup.
Project Officer: Michelle Mullin **Matrix:** Swab
Account Code: 20162017B10P501E50 **Container ID :**

Collected: Prepped: 8/24/16 Released:
Received: Reviewed:
Promised:

VERIFIED ___/___/___ _____ **Analysis Seq :** 6

Initial Amount: ~~40 mL~~ NA **Weight Basis:** Dry **Suffix:**
Final Amount: 10 mL
Dilution Factor: 1 **Analyzed:** 8/25/16 10:03 am **%Solids:** * 100
Method: 8082A Polychlorinated Biphenyls by GC/ECD
Anl. Batch: A-M082516PCB03-8082A-MINERVA-DWO-082516

	Analyte Code	Analyte Name	Res Type	Result	Units	Qlfr	RL
1	877098	Tetrachlorometaxylene	Surrogate	106	%Rec		
4	12674112	PCB-1016	Spike	101	%Rec		0.25ug
8	11096825	PCB-1260	Spike	103	%Rec		0.25ug
9	2051243	PCB Congener 209	Surrogate	100	%Rec		

COPY